surface 31 and the cam follower surface 47 is increased once, thereby making it possible to increase the operating torque at the time of a lock releasing operation.--

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended) A tilt steering apparatus for a tilt adjustable steering column, comprising:

a fixed bracket fixed to a body of a vehicle, and having side plates;

a tilt bracket fixed to the steering column and having side plates positioned to slide along the side plates of the fixed bracket at a time of tilt adjustment;

a supporting shaft passing through respective insertion holes of the side plates of the fixed bracket and of the side plates of the tilt bracket;

a lock lever rotatable around an axis of said supporting shaft and in a locking direction to lock the steering column in an adjusted tilt position, and being rotatable around the axis of said supporting shaft and in a locking releasing direction; and

a cam surface and a cam follower which are relatively rotated while being brought into sliding contact with each other as the lock lever is rotated,

the cam surface including a locking position in which the steering column is locked in the adjusted tilt position, a releasing position in which the steering column is unlocked so as to be free to be adjusted to a desired tilt position, and an intermediate position disposed between the locking position and the releasing position, the intermediate position including a plurality of slopes corresponding to a rotation stroke position of the lock lever,

the cam surface pressing the cam follower as the lock lever is rotated in the locking direction so that the side plates of the fixed bracket and the side plates of the tilt bracket are pressed against each other, resulting in the steering column being locked at the adjusted tilt position.

2. (Amended) The tilt steering apparatus according to claim 1, wherein

the cam follower is moved in a first direction relative to the cam surface when the lock lever is rotated in the locking direction,

the plurality of slopes of the cam surface includes first and second slopes which slope upward in the first direction, the second slope being gentler than the first slope, and

the cam follower slides from the first slope of the cam surface to the second slope thereof when the lock lever is rotated in the locking direction.

3. (Amended) The tilt steering apparatus according to claim 2, wherein

the plurality of slopes of the cam surface includes a third slope which slopes upward in the first direction, the third slope being gentler than the second slope, and

the third slope corresponds to a rear of a stroke in the locking direction of the lock lever, and

the cam follower successively slides toward the first, second and third slopes of the cam surface in this order when the lock lever is rotated in the locking direction.

4. (Amended) The tilt steering apparatus according to claim 2, wherein

the plurality of slopes of the cam surface includes an inverse slope which slopes downward in the first direction,

the inverse slope corresponds to a rear of a stroke in the locking direction of the lock lever, and

the cam follower slides toward the first and second slopes and the inverse slope of the cam surface in this order when the lock lever is rotated in the locking direction.

5. (Amended) The tilt steering apparatus according to claim 1, further comprising:

means for increasing an operating torque of the lock lever at a front of a stroke in the locking releasing direction of the lock lever, and

wherein the cam surface and the cam follower constitute means for increasing the operating torque of the lock lever.

6. (Amended) The tilt steering apparatus according to claim 5, wherein

the cam follower is moved in a first direction relative to the cam surface when the lock lever is rotated in the locking direction,

the cam surface includes an inverse slope which slopes downward in the first direction, and

the inverse slope of the cam surface corresponds to a front of a stroke in the locking releasing direction of the lock lever.

7. (Amended) A tilt steering apparatus for a tilt adjustable steering column, comprising:

a fixed bracket fixed to a body of a vehicle, and having side plates;

a tilt bracket fixed to the steering column and having side plates positioned to slide along the side plates of the fixed bracket at a time of tilt adjustment;

a supporting shaft passing through respective insertion holes of the side plates of the fixed bracket and of the side plates of the tilt bracket;

a lock lever rotatable around an axis of said supporting shaft and in a locking direction to lock the steering column in an adjusted tilt position, and being rotatable around the axis of said supporting shaft and in a locking releasing direction;

a cam surface and a cam follower which are relatively rotated while being brought into sliding contact with each other as the lock lever is rotated; and

means for increasing an operating torque of the lock lever at a front of a stroke in the locking releasing direction of the lock lever,

the cam surface and the cam follower constituting means for increasing the operating torque of the lock lever,

the cam surface pressing the cam follower as the lock lever is rotated in the locking direction of the lock lever so that the side plates of the fixed bracket and the side plates of the tilt bracket are pressed against each other, resulting in the steering column being locked in the adjusted tilt position, and wherein

the cam follower includes a cam follower surface having an edge, the cam follower surface being substantially brought into sliding contact with the cam surface at

the edge in correspondence with at least a front of a stroke in the locking releasing direction of the lock lever.

9. (Amended) The tilt steering apparatus according to claim 5, wherein the cam surface includes an area corresponding to a front of a stroke in the locking releasing direction of the lock lever, and a recess concaved by providing a step in the area.

Please add the following claims:

--12. The tilt steering apparatus according to claim 1, wherein the plurality of slopes of the cam surface includes first and second slopes which slope upward in a same direction, the second slope being gentler than the first slope, and the first and second slopes each being linear.

13. The tilt steering apparatus according to claim 7, wherein the cam surface includes first and second slopes which slope upward in a same direction, the second slope being gentler than the first slope, and the first and second slopes each being linear.--

REMARKS

The Examiner's Action mailed on November 29, 2002 has been received and its contents carefully considered.